



I-64 Capacity Improvements – Segment II

Initial Financial Plan

October 30, 2015

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TABLE OF CONTENTS

1. PROJECT DESCRIPTION	3
2. SCHEDULE.....	6
3. PROJECT COST.....	7
4. PROJECT FUNDS	9
5. FINANCING ISSUES.....	10
6. CASH FLOW.....	10
7. P3 ASSESSMENT.....	11
8. RISK AND RESPONSE STRATEGIES	11
9. ANNUAL UPDATE CYCLE.....	12

1. PROJECT DESCRIPTION

This project is Segment II of the planned I-64 Capacity Improvements on the Peninsula. The project limits are from MM 241.30, 1.05 miles west of Route 199 (Humelsine Pkwy/Marquis Ctr Pkwy, Exit 242) to where the Segment I project ends at MM 248.35, 0.54 miles east of Route 238 (Yorktown Rd, Exit 247). The 7.1 mile long project lies in the City of Newport News, James City County, and York County. I-64 is functionally classified as an Urban Interstate. The VDOT geometric design standard that will be utilized for I-64 will be GS-5 (Urban Principal Arterial – Freeway) with a minimum design speed of 70 mph east of Route 199 (Exit 242) and 75 mph west of Route 199 (Exit 242). VDOT has initiated this proposed widening project to provide immediate congestion relief to the roadway corridor.

VDOT has determined that the use of Design-Build contracting will expedite delivery. The Design-Builder will be able to perform final design, right of way acquisition, and utility relocation and some construction activities concurrently. This project contributes to the Preferred Alternative and contributes to the Purpose & Need elements outlined in the Final Environmental Impact Statement (FEIS). The project will incorporate context sensitive design where practical and in accordance with the resolution of the Transportation Planning Organization (TPO).



Under the terms of the design-build contract scheduled to be awarded by the Commonwealth Transportation Board (CTB) in January 2016, the design-builder will construct the widening of I-64 from a 4 lane divided interstate to a 6 lane divided interstate from state milepoint 241.30 to state milepoint 248.35. The proposed improvements include the addition of one 12-foot-wide travel lane and one 12-foot-wide shoulder in each direction. On the eastern end, this 4-lane section of I-64 ties into the 6-lane widening project, I-64 Capacity Improvements – Segment I, which ties into an 8-lane interstate system to the east. The widening is expected to occur in the median of the existing interstate, limiting the amount of right of way required to construct the project and avoiding impacts to existing interchanges. These improvements will increase capacity, minimize geometric and structural deficiencies, provide more lanes for evacuation and improve safety by reducing congestion and improving vehicular level of service.

Nine existing bridges within the corridor will be widened to the inside to accommodate the same typical section as the roadway. Six major box culverts will also be extended due to the interstate widening. The existing concrete travel lanes, acceleration/deceleration lanes and outside shoulder will be demolished and reconstructed as part of the project.

Project History

The following is a brief chronology on the development of the project I-64 Capacity Improvements – Segment II:

November 2012

The draft Environmental Impact Statement (EIS) for the Interstate 64 Peninsula Study, a 75-mile long corridor from Hampton to Richmond was released for public review.

December 2012

Location Public Hearings for the draft EIS were held in Richmond, Williamsburg, and Newport News.

March 2013

The TPO recommended Alternative 1B as the locally preferred alternative, with the caveat that Context Sensitive Design be applied, as well as a phased approach (build in fundable sections) for construction of the project.

April 2013

The CTB passed a resolution identifying a preferred alternative for the Interstate 64 Peninsula Study as Alternative 1: general purpose widening with the option to widen to the outside or within the median, to be determined on a segment-by-segment basis. The resolution also stated that future development of operationally independent segments within the study corridor should be closely coordinated with the TPO.

The Richmond Area Metropolitan Planning Organization identified Alternative 1B in the Draft EIS as its locally preferred alternative, subject to conditions relating to right of way acquisition and design.

June 2013

HB 2313 was signed into law, which provides a comprehensive transportation funding source and includes a major regional funding package for Hampton Roads.

The Hampton Roads Transportation Planning Organization (HRTPO) approved and adopted a resolution endorsing six-lane options to provide immediate congestion relief of I-64 between Exit 255 (Jefferson Avenue) and Exit 242 (Humelsine Parkway).

November 2013

On November 26, 2013, FHWA and VDOT signed the Final EIS for the I-64 Peninsula Study. This signature finalized the document and approved it for public distribution and review. In the Notice of Availability (NOA) published in the Federal Register, FHWA specifically solicited comments on the phased implementation of the preferred alternative. A 60-day comment period was provided following the publication of the NOA.

November 2014

The Hampton Road Transportation Accountability Commission (HRTAC) included the I-64 Peninsula Segment II Project which will widen I-64 from Route 238 (Exit 247) to Route 199 East of Williamsburg (Exit 242) as one of the initial construction projects in the funding plan presented at the Commission's November 5, 2014 public hearing. The funding plan projected that the project would cost approximately \$214 million.

April 2015

The HRTAC executed an Interim Project Agreement for Funding and Administration with VDOT that authorized \$6 million of funding for preliminary engineering project costs. HRTAC also issued Resolution 2015-01 that reaffirmed its interest in completing the I-64 Peninsula Segment II project which was projected to cost approximately \$214 million.

The Request for Qualifications (RFQ) for I-64 Capacity Improvements – Segment II was released on April 21, 2015.

June 2015

On June 8, 2015, FHWA signed the Record of Decision for Segment II of the I-64 Peninsula Study. This signature completed the NEPA process and allowed VDOT to advance with more detailed design activities.

July 2015

The Request for Proposals (RFP) for I-64 Capacity Improvements – Segment II was released on July 21, 2015.

August 2015

The HRTAC voted to authorize to execute an Agreement with VDOT to construct I-64 Segment II at their regular meeting on August 20, 2015.

Current Activities

The Design-Build contract is scheduled to be awarded in January 2016 with a February 2016 notice to proceed (NTP).

Project Website

Additional information on the I-64 Capacity Improvements project can be found on the project website at the following link:

http://166.67.66.136/projects/hamptonroads/interstate_64_capacity_improvements_-_segment_ii.asp

The website provides additional information regarding project description, purpose, location map, implementation schedule, cost, contact information, etc.

2. SCHEDULE

Chart 1 below is an approximate anticipated schedule for the selected design-build team:

Notice to Proceed February 17, 2016

PE – Design: Begin 02/16; End 01/17

RW/Utilities: Begin 02/16; End 06/18

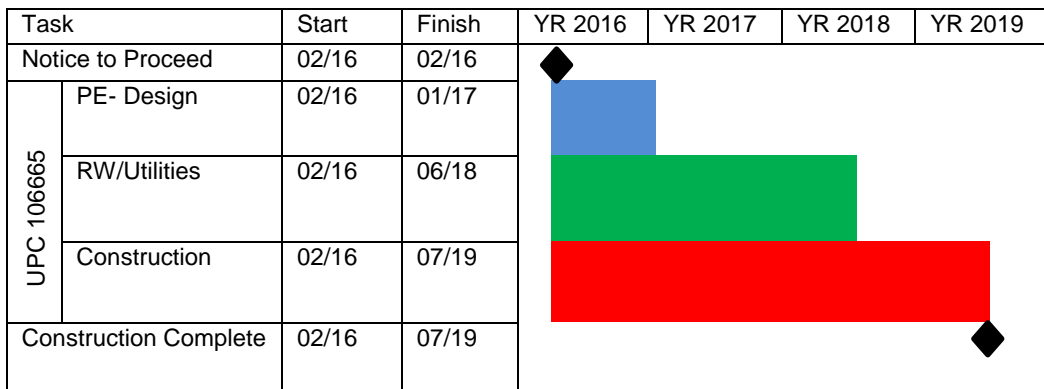
Construction: Begin 02/16; End 07/19

- 06/16 Begin Phase 1 Construction, Lane Shifts and Shoulder Strengthening at Bridges
- 12/16 Begin Phase 2 Construction, I-64 New Inside Lanes and First Phase of Bridges
- 09/18 Begin Phase 3 Construction, Stage 2 of Bridges, Noise Walls, and Pavement Replacement
- 02/19 Begin Phase 4 Construction, placement of all final surface asphalt material

Early Completion/ "No Excuses" Incentive Date May 24, 2019

Final Completion Date July 26, 2019 (OR Offeror's proposed early completion date)

CHART 2.1 - PROJECT SCHEDULE OVERVIEW



3. PROJECT COST

The current total project cost estimate is \$213,592,853. Project costs noted in the estimate below include: preliminary design activities, right of way purchase, utility relocation, environmental and design permits/approvals, survey and geotechnical investigations, and construction.

TABLE 3.1 – PROJECT COST ESTIMATE

Cost Finance Summary					Date 10/30/2015		
I-64 Capacity Improvements - Segment II		Prepared by Virginia Department of Transportation					
UPC 106665							
	Expended to Date (10/30/15)	PE - including Stipend	VDOT Oversight & Review - CEI	R/W, Direct Costs	Design/Build Costs	Contingency (10%)	TOTAL (Less Contingency)
Preliminary Engineering							
Conceptual Roadway/Bridge Design	\$ 400,000	\$ 5,080,000					
Procurement of D/B		\$ 350,000					
Stipend/Pre-Proposal Activities		\$ 170,000					
Design Subtotal	\$ 400,000	\$ 5,600,000					\$ 6,000,000
Right of Way							
RW Admin							
RW Allowance				\$ 1,511,548			
RW Subtotal			\$ -	\$ 1,511,548	\$ -		\$ 1,511,548
Construction							
Final Design					\$ 9,669,449		
Mobilization					\$ 8,057,874		
Environmental Permitting					\$ 2,086,751		
Util. Admin					\$ -		
Utilities					\$ 1,523,600		
Public Communications Plan			\$ 500,000				
Landscaping Work Order			\$ 1,300,000				
Constr./Project Management			\$ 2,500,000				
Early Completion Incentive			\$ 1,050,000				
State Police			\$ 600,000				\$ 600,000
Construction - Bridges					\$ 25,454,382		
Construction - Roadway					\$ 117,938,058		
QA/CIP			\$ 4,746,299		\$ 12,892,619		
CEI Subtotal			\$ 10,096,299		\$ 177,622,733	\$ 17,762,273	\$ 187,719,032
Design-Build Risk (7.5%)					\$ -		\$ -
Price Adjustments - Fuel, Asphalt, Steel (3%)					\$ -		\$ -
TOTAL	\$ 400,000	\$ 5,600,000	\$ 10,696,299	\$ 1,511,548	\$ 177,622,733	\$ 17,762,273	\$ 195,830,580
VDOT Oversight Percentage			9.4%	Total Cost With Contingency		\$213,592,853	
BREAKOUT							
Design Builders Bid					\$177,622,733	CN	
Contingency					\$17,762,273		
State Police					\$600,000		
CEI (VDOT ONLY)					\$10,096,299		
RW					\$1,511,548	RW	
PE, including Stipend & already expended funds					\$6,000,000	PE	
Total					\$213,592,853		

Cost Estimating Methodology

Work elements associated with the I-64 Capacity Improvements – Segment II project can be summarized in two components: (1) work to be carried out under the design-build contract by the design-builder and (2) work outside of the Design-Build contract for which VDOT is responsible or has already accomplished throughout the development of the project.

Design-Build Contract: The awarded Design-Build contract for the I-64 Capacity Improvements project will be lump sum and will include the following major work elements to be provided by the design-builder: final design; right-of-way acquisition services; utility coordination; utility relocations; construction; and construction quality assurance and quality control (QA/QC). The estimated cost for the Design-Build contract was developed using the Request for Proposals (RFP) Plans and making adjustments to a construction quantity estimate developed for those plans, to account for anticipated changes to the project. The changes account for modifications to the plans to meet current project design criteria as detailed in the Design-Build RFP Technical Requirements. The fixed amount of the Design-Build contract is a lump sum, with payments based upon the project physical percent of completion.

Work Outside of Design-Build Contract: VDOT will remain responsible for updating the EIS documentation; preliminary engineering support services; oversight of final design; oversight of right-of-way acquisition services; payment for new right-of-way acquired for the project; landscaping maintenance after project construction; Design-Build risk contingency; and oversight of construction:

- **Preliminary Engineering:** VDOT will execute an agreement with a professional services firm to provide engineering and technical support during project development. Specifically, VDOT needs support for reviewing preliminary and final design submissions.
- **Right of Way Purchases:** In accordance with the Design-Build RFP, Part 2, Section 1.5, VDOT remains responsible for the actual cost of the purchase of right-of-way, all easements and miscellaneous fees associated with real estate closings as part of the project and oversight of the right-of-way acquisition/payment/condemnation process.
- **VDOT Project Oversight Costs:** VDOT post-award costs to manage the project and provide oversight of the project are estimated to be \$8,996,299. These costs include overall project management, design reviews, contract administration and construction oversight.

In addition, other preliminary engineering expenditures associated with project development of the I-64 Capacity Improvements project are reflected in the total project estimate.

Summary of Estimates and Expenditures

Table 3.2 includes the current estimate of the total cost of the project and the remaining cost-to-complete in year-of-expenditure dollars. The table below depicts the estimated project expenditures as of October 30, 2015.

TABLE 3.2 – PROJECT COST BY PHASE

Phase	Estimate/Budget	Expenditures as of 10/30/15	Balance to Complete
PE	\$6,000,000	\$400,000	\$5,600,000
RW	\$1,511,548	\$0	\$1,511,548
CN	\$206,081,305	\$0	\$206,081,305
Total	\$213,592,853	\$400,000	\$213,192,853

4. PROJECT FUNDS

The current total project cost estimate is \$213,592,853. In April 2015, the Hampton Roads Transportation Accountability Commission (HRTAC) executed an Interim Project Agreement for Funding and Administration with VDOT that authorized \$6 million of funding for PE project costs. On September 17, 2015, the Hampton Roads Transportation Planning Organization (HRTPO) amended its Transportation Improvement Plan (TIP) to add HRTF funds in the amount of \$207,592,853 through state FY 2019. Additionally, HRTPO has submitted an application through the House Bill 2 (HB2) prioritization process to help fund this project with statewide high priority grant funding. If this project is selected by the CTB to receive the HB2 high priority grant funds, the amount of HRTF funds that are currently allocated to the project will be reduced.

Six-Year Improvement Program (SYIP) Funding

I-64 Capacity Improvements Project – Segment II is fully funded with HRTAC funds.

State Sources:

Hampton Roads Transportation Accountability Commission (HRTAC) Funds: The Final FY 2016-2021 SYIP includes \$6,000,000 in Hampton Roads Transportation Funds (HRTF) allocated by the HRTAC. Based on the September 17th action by the HRTPO, additional funds have been allocated to the project in the amount of \$207,592,853.

Table 4.1 summarizes the funding allocated to the I-64 Capacity Improvements – Segment II by fund source and year.

TABLE 4.1 – SUMMARY OF FUNDING BY SOURCE AND YEAR

Funding Source		Previous	2017	2018	2019	2020	2021	TOTAL
UPC 106665	HRTAC	\$21,372,390	\$69,210,987	\$77,628,572	\$45,380,904	\$ -	\$ -	\$213,592,853
GRAND TOTAL		\$21,372,390	\$69,210,987	\$77,628,572	\$45,380,904	\$ -	\$ -	\$213,592,853

Federal Fund Sources and Special Funding Techniques

The Hampton Roads Transportation Planning Organization (HRTPO) amended its TIP on May 21, 2015 to include \$6 million in HRTF funding for the preliminary engineering phase of this project. FFY15 Statewide Transportation Improvement Plan (STIP) Amendment #7 was subsequently approved by FHWA on June 3, 2015, adding the preliminary engineering phase and associated funding to the Commonwealth's STIP.

Preliminary engineering for this project was authorized by the Federal Highway Administration (FHWA) on July 13, 2015 under federal project number 9655086. The project authorization uses the Advance Construction (AC) provision and currently has no obligated federal funds, as shown in Table 4.2 below:

TABLE 4.2
PROJECT AUTHORIZATION SUMMARY AS OF OCTOBER 30, 2015

Federal Project	UPC	Phase Classification	Cost	Federal Funds	Advance Construction
9655086	106665	PE	\$6,000,000	\$0	\$6,000,000

On September 17, 2015, the HRTPO amended its TIP to add HRTF funds to the right of way and construction phases of this project in the amount of \$207,592,853 through state FY 2019. FFY16 STIP Amendment # 2 was subsequently approved by FHWA on October 27, 2015. Based on this action, it is expected that a modification to the current federal agreement will be submitted to FHWA in early November 2015, prior to award of the design-build contract, to add the right of way and construction phases. It is anticipated that this modification request will utilize the AC provision.

5. FINANCING ISSUES

There are no financing issues on this project.

6. CASH FLOW

I-64 Capacity Improvements – Segment II project annual cash expenditures are based on the project schedule assumed by the VDOT Design Team. Table 6.1 below is a Cash Flow Analysis for the project. It shows the comparison of previously expended and projected expenditures by fiscal year by phase against the total annual allocations.

TABLE 6.1 – CASH FLOW ANALYSIS (IN THOUSANDS)

	Previous	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
PE	\$400	\$3,600	\$2,000	\$0	\$0	\$0	\$6,000
Right of Way	\$0	\$0	\$1,512	\$0	\$0	\$0	\$1,512
Construction	\$0	\$16,593	\$57,688	\$61,200	\$61,200	\$9,400	\$206,081
Total Annual Expenditures	\$400	\$20,193	\$61,200	\$61,200	\$61,200	\$9,400	
Cumulative Expenditures	\$400	\$20,593	\$81,793	\$142,993	\$204,193	\$213,593	\$213,593
Total Annual Allocations	\$6,000	\$15,372	\$69,211	\$77,629	\$45,381	\$0	
Cumulative Allocations	\$6,000	\$21,372	\$90,584	\$168,212	\$213,593	\$213,593	\$213,593
Cumulative Allocation Surplus (Deficit)	\$5,600	\$780	\$8,791	\$25,219	\$9,400	\$0	\$0

7. P3 ASSESSMENT

This interstate project cannot be tolled and is not a candidate for delivery via the Public Private Transportation Act (PPTA).

8. RISK AND RESPONSE STRATEGIES

VDOT's current budget in the SYIP for FY2016-2021 is \$213.6 million for I-64 Capacity Improvements – Segment II project.

The scope of work required for the project consists of, but is not limited to, widening 7.1 miles of Interstate 64 to the median side eastbound and westbound, widening and rehabilitation of nine (9) existing bridges within the project corridor, modification, extension and/or rehabilitation of six (6) existing major culverts within the project corridor, replacement of the existing pavement structure (travel lanes, acceleration and deceleration lanes and shoulders), widening of the outside shoulder for a portion of the project, and extending the existing acceleration and deceleration lanes for the interchanges throughout the project corridor to meet current AASHTO Standards.

It is anticipated that the project's contingency budget included in the project estimate will mitigate the project risks.

The following Design Waivers have been approved with respect to the RFP Conceptual Plans for this project:

- (1) Existing bridge outside shoulder width for the I-64 mainline bridges over Penniman Road (Route 641) and the inactive railroad (B-627 and B-628) does not meet VDOT Structure and Bridge Manual 06.02-1 Requirements.

(2) The existing and proposed vertical bridge clearance of I-64 Eastbound over Jefferson Avenue (Route 143) does not meet the VDOT Structure and Bridge Manual 06.02-08 Requirements.

(3) The proposed inside shoulder cross slope for I-64 in both eastbound and westbound directions does not meet VDOT Road Design Manual GS-11 Standards.

(4) The use of deck extensions for structures B-627, B-628, B634, and B-635 varies from VDOT requirements for the use of full integral and semi-integral abutments.

Right of way acquisition is one area where VDOT has exposure for a cost increase. VDOT remains responsible for the actual cost of the purchase of remaining right-of-way, all easements, and miscellaneous fees associated with closing. While the current right-of-way cost estimate includes costs for potential condemnations, escalation and other associated costs, there is the possibility that actual acquisition costs may fluctuate prior to final settlement. Potential additional costs can be mitigated through the identification of opportunities to reduce right of way impacts through design modifications and value engineering opportunities that may develop during final design and right of way negotiations. Interchange modifications will not be included in this project. In order to minimize right-of way and property impacts, the additional 12' lane and 12' shoulder will be added towards the median in each direction.

9. ANNUAL UPDATE CYCLE

The submission date of the Initial Financial Plan is October 30, 2015. The first annual update will be submitted by October 30, 2016 and will be based on a "data as of" date of July 30, 2016. Future annual updates will be submitted by October 30 of that year, with a "data as of" date of July 30 of that year.